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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,916	02/20/2004	Chengde Wu	017092-0044-999	7123
20583	7590	08/21/2006	EXAMINER	
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			DAVIS, ZINNA NORTHINGTON	
			ART UNIT	PAPER NUMBER
			1625	
DATE MAILED: 08/21/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/783,916

Applicant(s)

WU ET AL.

Examiner

Zinna Northington Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 June 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.  
4a) Of the above claim(s) 2,6 and 7 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1 and 3-5 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5/04;12/04.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. In the response filed June 6, 2006, Applicants have elected the compound of Example 70 as the preferred species. The Group I (claims 1-5) invention is elected without traverse. Claims 2, 6 and 7 are withdrawn from consideration by the Examiner. These claim are drawn to a non-elected invention.

2. Applicants are reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a diligently filed petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(h).

3. Claims 1 and 3-5 are Markush claims which are generic to the elected invention. These Markush claims lack unity of invention. Accordingly, the Markush type claim will be examined fully with respect to the elected species and further to the extent necessary to determine patentability. See MPEP 803.02.

4. Claims 1 and 3-5 are objected on the grounds that the claims are drawn to an improper Markush group. In re Harnish, 206 USPQ 300, states that a unity of invention exists where compounds included within a Markush group(1) share a common utility and (2) share a substantial structural feature disclosed as being essential to that utility. In the instant case, the claimed subject matter does not share a substantial structural feature disclosed as being essential to that utility.

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The requirement for a proper Markush claim is that it includes only substances that in their physical, chemical and physiological characteristics are functionally equivalent. The members of the instant Markush groups possess widely different, physical and chemical properties. The compounds are not considered functionally equivalent and are so diverse that they demonstrate dissimilar and unrelated properties. The mere fact that there is structural similarity in pharmaceutical agents is not in itself reason to render all the embodiments functionally equivalent.

The improper Markush groups are X, Y, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, R<sub>5</sub>, R<sub>6</sub>, L<sub>1</sub>, L<sub>2</sub>, and L<sub>3</sub>.

5. The elected species has been examined and found to be allowable. Accordingly, the search has been extended to the examined subject matter which is as follows:

A compound of claim 1 where X and Y are independently C or N; Y is N; L<sub>2</sub> and L<sub>3</sub> are a single bond; L<sub>1</sub> is O, S and N; L<sub>4</sub> is (CH<sub>2</sub>)<sub>n</sub>; n is 1 to 6; R<sub>1</sub> and R<sub>2</sub> along with N can form a ring; R<sub>1</sub> and L<sub>1</sub> or R<sub>1</sub> and one carbon of (CH<sub>2</sub>)<sub>n</sub> do not form a ring. The radicals not defined above are as represented in claim 1. Amending the claims to the examined subject matter would overcome the improper Markush rejection.

6. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101, which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re*

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*Ockert*, 245 F.2d 467; 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

7. Claims 1 and 3-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims of copending Application No. 10/924,181. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter overlaps. See the instant claims of the applications.

8. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 1, 3, and 4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. At claims 1 and 3, it is suggested that the phrase " and the pharmaceutically acceptable salts" should read as --or a pharmaceutically acceptable salt--.

B. At claim 4, a period is needed at the end of the claim. Is text missing?

Clarification is appreciated.

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Fauran et al (Reference A, cited by the Examiner).

The instantly claimed compounds are disclosed. At pages 3 and 4, see the compounds of formula (I). At Table I, pages 13 and 14, pages 15 and 16, and pages 17 and 18, see the listed compounds. The claims are fully met when X is N; Y is N; L<sub>2</sub> and L<sub>3</sub> are a single bond; L<sub>2</sub> is O; L<sub>4</sub> is (CH<sub>2</sub>)<sub>n</sub>; n is 2; and R<sub>1</sub> and R<sub>2</sub> along with N form a ring.

13. Claims 1, 3 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Glaxo Group Limited (Reference A1, cited by Applicants).

The instantly claimed compounds are disclosed. At pages 3 and 4, see the compounds of formula (I). At page 25, see example 12. At page 27, see example 27. The claims are fully met when X is N; Y is C; L<sub>2</sub> and L<sub>3</sub> are a single bond; L<sub>2</sub> is O; L<sub>4</sub> is (CH<sub>2</sub>)<sub>n</sub>; n is 2; and R<sub>1</sub> and R<sub>2</sub> along with N form a ring.

14. Claims 1 and 5 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Elslager et al (Reference U, cited by the Examiner).

The instantly claimed compound is disclosed. At page 133, Table III, see compound no. 80. The claims are fully met when X is C; Y is N; L<sub>2</sub> and L<sub>3</sub> are a single bond; L<sub>2</sub> is N; L<sub>4</sub> is (CH<sub>2</sub>)<sub>n</sub>; n is 3; and R<sub>1</sub> and R<sub>2</sub> along with N form a ring.

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15. The Information Disclosure Statements filed May 24, 2004 and December 29, 2004 have been considered.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zinna Northington Davis whose telephone number is 571-272-0682.

17. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300 for regular communications.

18. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**Zinna Northington Davis**  
**Primary Examiner**  
**Art Unit 1625**